GenCore version 6.2.1
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OM protein - protein search, using sw model

Run on: January 27, 2009, 15:05:50 ; Search time 1 Seconds
                                            (without alignments)
                                            1.259 Million cell
updates/sec

Title: US-10-983-128-6016
Perfect score: 1731
Sequence: 1 MSDRQAALDMALKQIEKQFG..........TGGAAPAQEDEAQAQEELEF 348

Scoring table: BLOSUM62
                 Gapop 10.0 , Gapext 0.5

Searched: 10 seqs, 3617 residues

Total number of hits satisfying chosen parameters: 10

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :   US10593425.pep:*

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being
printed,
     and is derived by analysis of the total score distribution.

                              SUMMARIES
                 %
Result   Query
  No.   Score   Match Length DB   ID   Description

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     1   1731   100.0   348   1   US-10-593-425-32   Sequence 32,
Appl
     2   1718   99.2   348   1   US-10-593-425-2   Sequence 2,
Appli
     3   73   4.2   492   1   US-10-593-425-8   Sequence 8,
Appli
     4   64   3.7   425   1   US-10-593-425-10   Sequence 10,
Appl
     5   60.5   3.5   500   1   US-10-593-425-12   Sequence 12,
Appl
     6   52   3.0   398   1   US-10-593-425-6   Sequence 6,
Appli
     7   48   2.8   264   1   US-10-593-425-16   Sequence 16,
Appl
     8   44   2.5   398   1   US-10-593-425-4   Sequence 4,
Appli

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   9    42.5   2.5    288   1   US-10-593-425-18         Sequence 18,
Appl
   10   34.5   2.0    156   1   US-10-593-425-14         Sequence 14,
Appl
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                              ALIGNMENTS

RESULT 1
US-10-593-425-32
; Sequence 32, Application US/10593425
; GENERAL INFORMATION:
; APPLICANT: Feesche, Jorg
; APPLICANT: Meinhardt, Friedhelm
; APPLICANT: Nahrstedt, Hannes
; APPLICANT: Waldeck, Jens
; APPLICANT: Groene, Mark
; APPLICANT: Eichstadt, Renee
; TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
; TITLE OF INVENTION: Safety Stems Used for Biotechnological
Production
; FILE REFERENCE: H 06291 (13744*21)
; CURRENT APPLICATION NUMBER: US/10/593,425
; CURRENT FILING DATE: 2006-09-19
; PRIOR APPLICATION NUMBER: PCT/EP05/001543
; PRIOR FILING DATE: 2005-02-16
; PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
; PRIOR FILING DATE: 2004-03-19
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 32
;   LENGTH: 348
;   TYPE: PRT
;   ORGANISM: Bacillus licheniformis A
US-10-593-425-32

  Query Match   100.0%; Score 1731; DB 1; Length 348;
  Best Local Similarity   100.0%; Pred. No. 0;
  Matches 348; Conservative   0; Mismatches   0; Indels   0;
Gaps   0;

Qy   1
MSDRQAALDMALKQIEKQFGKGSIMKLGEQTETRISTVPSGSLALDAALGVGGYPRGRII 60

           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1
MSDRQAALDMALKQIEKQFGKGSIMKLGEQTETRISTVPSGSLALDAALGVGGYPRGRII 60

Qy   61
EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIDELLLSQPDTG 120

           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61
EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIDELLLSQPDTG 120

Qy   121
EQALEIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAI 180

```
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121
EQALEIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAI 180


Qy        181
NKSKTIAIFINQIREKVGVMFGNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKT 240

          |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181
NKSKTIAIFINQIREKVGVMFGNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKT 240


Qy        241
KIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGAWYSYQEERLGQGR 300

          |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241
KIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGAWYSYQEERLGQGR 300


Qy        301 ENAKQFLKENKDILLMIQEQIREHYGLDTGGAAPAQEDEAQAQEELEF 348
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 ENAKQFLKENKDILLMIQEQIREHYGLDTGGAAPAQEDEAQAQEELEF 348



RESULT 2
US-10-593-425-2
; Sequence 2, Application US/10593425
; GENERAL INFORMATION:
;  APPLICANT: Feesche, Jorg
;  APPLICANT:  Meinhardt, Friedhelm
;  APPLICANT:  Nahrstedt, Hannes
;  APPLICANT:  Waldeck, Jens
;  APPLICANT:  Groene, Mark
;  APPLICANT:  Eichstadt, Renee
;  TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;  TITLE OF INVENTION:  Safety Stems Used for Biotechnological
Production
;  FILE REFERENCE: H 06291 (13744*21)
;  CURRENT APPLICATION NUMBER: US/10/593,425
;  CURRENT FILING DATE:  2006-09-19
;  PRIOR APPLICATION NUMBER: PCT/EP05/001543
;  PRIOR FILING DATE: 2005-02-16
;  PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;  PRIOR FILING DATE: 2004-03-19
;  NUMBER OF SEQ ID NOS: 32
;  SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
;   LENGTH: 348
;   TYPE: PRT
;   ORGANISM: Bacillus licheniformis DSM 13
US-10-593-425-2

  Query Match               99.2%;  Score 1718;  DB 1;  Length 348;
  Best Local Similarity  99.4%;  Pred. No. 0;
  Matches  346; Conservative   1; Mismatches   1; Indels   0;
Gaps    0;

Qy          1
MSDRQAALDMALKQIEKQFGKGSIMKLGEQTETRISTVPSGSLALDAALGVGGYPRGRII 60
```

```
      |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         1
MSDRQAALDMALKQIEKQFGKGSIMKLGEQTETRISTVPSGSLALDAALGVGGYPRGRII 60


Qy        61
EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIDELLLSQPDTG 120
                |||||||||||||||||||||||||||||||||||||:
      ||||||||||||||||||||||||
Db        61
EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDADTALDPVYAQKLGVNIDELLLSQPDTG 120


Qy       121
EQALEIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAI 180


      |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       121
EQALEIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAI 180


Qy       181
NKSKTIAIFINQIREKVGVMFGNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKT 240


      |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       181
NKSKTIAIFINQIREKVGVMFGNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKT 240


Qy       241
KIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGAWYSYQEERLGQGR 300


      |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       241
KIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGAWYSYQEERLGQGR 300


Qy       301 ENAKQFLKENKDILLMIQEQIREHYGLDTGGAAPAQEDEAQAQEELEF 348
                |||||||||||||||||||||||||||||||||||||||||||||||
Db       301 ENAKQFLKENKDILLMIQEQIREHYGLDTGGAAPAQEDEAQAQEELEF 348



RESULT 3
US-10-593-425-8
; Sequence 8, Application US/10593425
; GENERAL INFORMATION:
;  APPLICANT: Feesche, Jorg
;  APPLICANT:  Meinhardt, Friedhelm
;  APPLICANT:  Nahrstedt, Hannes
;  APPLICANT:  Waldeck, Jens
;  APPLICANT:  Groene, Mark
;  APPLICANT:  Eichstadt, Renee
;  TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;  TITLE OF INVENTION:  Safety Stems Used for Biotechnological
Production
;  FILE REFERENCE: H 06291 (13744*21)
;  CURRENT APPLICATION NUMBER: US/10/593,425
;  CURRENT FILING DATE:  2006-09-19
;  PRIOR APPLICATION NUMBER: PCT/EP05/001543
;  PRIOR FILING DATE: 2005-02-16
;  PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;  PRIOR FILING DATE: 2004-03-19
;  NUMBER OF SEQ ID NOS: 32
;  SOFTWARE: PatentIn version 3.3
```

; SEQ ID NO 8
;   LENGTH: 492
;   TYPE: PRT
;   ORGANISM: Bacillus subtilis
US-10-593-425-8

  Query Match   4.2%; Score 73; DB 1; Length 492;
  Best Local Similarity 19.0%; Pred. No. 0;
  Matches 58; Conservative 57; Mismatches 109; Indels 82;
Gaps 13;

```
Qy        73
VALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIDELLLSQPDTGEQALEIAEALVR 132
                :  |  ||:     |     |  ||:    |     |    |   :::  |  |     :  | |
Db       127 IPFHEAAEI----GTRKVIQ-EHSTIGVVITTDGTIGD---
IARSDYIEAEERVIEELKE 178

Qy       133 SGAVDIVVIDSVAALVPKAE-IEGDMGDSH------
VGLQARLMSQALRKLSGAINKSKT 185
                    |    |:||:||     |:  |  :    |:  :  :          :  :::    |   |   |   |: :
Db       179
VGKPFIMVINSVRPYHPETEAMRQDLSEKYDIPVLAMSVESMRESDVLSVLREALYEFPV 238

Qy       186 IAIFIN------------
QIREKVGVMFGNPETTPGGRALKFYSSVRLEVRRAEQLKQGN 233
                    :  :  :|                :||                    :   ||:   |:   ::|:
:
Db       239 LEVNVNLPSWVMVLKENHWLRE-----------------
SYQESVKETVKDIKRLRDVD 280

Qy       234
DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGAWYSYQE 293
                    |:|    ::  :  :::        |    |:|::            |:|        :
:
Db       281 RVVGQFSEFEFIES-------AGLAGIELGQGVA----------
EIDLYAPDHLYDQILK 323

Qy       294 ERLG---QGRE----------
NAKQFLKENKDILLMIQEQIREHYGLDTGGAAPAQEDEA 340
                    | :|    :||:            :||     :  |  |  |:::      ||:     ||||   |
:
Db       324 EVVGVEIRGRDHLLELMQDFAHAKTEYDQVSDALKMVKQ---TGYGI----
AAPALADMS 376

Qy       341 QAQEEL 346
                   :  |:
Db       377 LDEPEI 382
```

RESULT 4
US-10-593-425-10
; Sequence 10, Application US/10593425
; GENERAL INFORMATION:
; APPLICANT: Feesche, Jorg
; APPLICANT: Meinhardt, Friedhelm
; APPLICANT: Nahrstedt, Hannes
; APPLICANT: Waldeck, Jens
; APPLICANT: Groene, Mark
; APPLICANT: Eichstadt, Renee
; TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-

inactivated
;   TITLE OF INVENTION: Safety Stems Used for Biotechnological
Production
;   FILE REFERENCE: H 06291 (13744*21)
;   CURRENT APPLICATION NUMBER: US/10/593,425
;   CURRENT FILING DATE: 2006-09-19
;   PRIOR APPLICATION NUMBER: PCT/EP05/001543
;   PRIOR FILING DATE: 2005-02-16
;   PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;   PRIOR FILING DATE: 2004-03-19
;   NUMBER OF SEQ ID NOS: 32
;   SOFTWARE: PatentIn version 3.3
; SEQ ID NO 10
;   LENGTH: 425
;   TYPE: PRT
;   ORGANISM: Bacillus subtilis
US-10-593-425-10

  Query Match   3.7%; Score 64; DB 1; Length 425;
  Best Local Similarity   20.1%; Pred. No. 0;
  Matches   70; Conservative   46; Mismatches 126; Indels 106;
Gaps   15;

Qy   35 ISTVPSGSLALDAALGVGGYPRGRIIEVY------
GPESSGKTTVALHAIAEVQQQGGQ- 87
                    : :| | ::|| : | :: : | :| |: | : | : :
||
Db   104 LKVIPGGQ-----SIGVKLHSVGVLVGFHQINTSEGKKSPGE-
TAGIEAGDIIIEMNGQK 157

Qy   88 -------AAFIDAEHALDPVYAQKLGVNIDEL-----------
LLSQPDTGEQALEIAEA 129
                            | || | | | ::| | |: : | || |
Db   158 IEKMNDVAPFIQK--------
AGKTGESLDLLIKRDKQKIKTKLIPEKDEGEGKYRIG-L 208

Qy   130 LVRSGAVDI-------------------------VVIDS---
VAALVPKAEIEGDMG 158
                     :| | | :|:: | : | ||
|
Db   209 YIRDSAAGIGTMTFYEPKTKKYGALGHVISDMDTKKPIVVENGEIVKSTV--
TSIEKGTG 266

Qy   159
DSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVMFGNPETTPGGRALKFYSS 218
                     : || |: || | ||:: || | :   :   :||
|
Db   267 GNPGEKLARFSSE--RKTIGDINRNSPFGIF--------
GTLHQPIQNNISDQALPVAFS 316

Qy   219 VRLEVRRAEQLKQGNDVMGNKTKIKVVKN------------KVAPPFRTAE----
VDIM 261
                     :: || | :| | |:::| |: | | |
|
Db   317
TEVKKGPAEILTVIDDDKVEKFDIEIVSTTPQKFPATKGMVLKITDPRLLKETGGIVQGM 376

Qy   262 YGEGISKEGEIIDLGTELDIVQKSGAWYSYQEERLGQ------GRENA 303
                     | | : |::| | : :   : : : | | : |:| |
Db   377 SGSPIIQNGKVIGAVTHVFVNDPTSGYGVHIEWMLSEAGIDIYGKEKA 424

RESULT 5
US-10-593-425-12
; Sequence 12, Application US/10593425
; GENERAL INFORMATION:
; APPLICANT: Feesche, Jorg
; APPLICANT: Meinhardt, Friedhelm
; APPLICANT: Nahrstedt, Hannes
; APPLICANT: Waldeck, Jens
; APPLICANT: Groene, Mark
; APPLICANT: Eichstadt, Renee
; TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
; TITLE OF INVENTION: Safety Stems Used for Biotechnological
Production
; FILE REFERENCE: H 06291 (13744*21)
; CURRENT APPLICATION NUMBER: US/10/593,425
; CURRENT FILING DATE: 2006-09-19
; PRIOR APPLICATION NUMBER: PCT/EP05/001543
; PRIOR FILING DATE: 2005-02-16
; PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
; PRIOR FILING DATE: 2004-03-19
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 12
; LENGTH: 500
; TYPE: PRT
; ORGANISM: Bacillus subtilis
US-10-593-425-12

  Query Match   3.5%; Score 60.5; DB 1; Length 500;
  Best Local Similarity   19.0%; Pred. No. 0;
  Matches   58; Conservative   47; Mismatches   82; Indels 119;
Gaps   17;

Qy   119 TGEQAL-------
EIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMG------------- 158
              | |||:   :| : ::| |:: | || |
Db   10 TEEQAIKGSSIDSQIEACIKKAGTKDVL----------
KYADEGFSGELLERPALNRLRE 59

Qy   159 DSHVG------------
LQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVMFGNPET 206
              |: | | :||:| : :   : | ||:| |
Db   60 DASKGLISQVICYDPDRLSRKLMNQLI--IDDELRKRNIPLIFVN----------
GEYAN 107

Qy   207 TPGGR-------ALKFYSSVRLEVR----RAEQLKQGNDVMGNKT-
KIKVVKNKVAPPFR 254
                :| |: |: :   ::: | | :::|:| : :| | || |
|
Db   108
SPEGQLFFAMRGAISEFEKAKIKERTSSGRLQKMKKGMIIKDSKLYGYKFVKEK-----R 162

Qy   255 TAEVDIMYGEGISKEGEIIDL--------------------GTELDIVQKSGA--
WY- 289
              | |:   : :| :|| : |:: : | ||
|:
Db   163 TLEI-------

```
LEEEAKIIRMIFNYFTDHKSPFFGRVNGIALHLTQMGVKTKKGAKVWHR 215

Qy        290 ----------SYQEERLGQGRENAKQFLKE---
NKDILLMIQEQIREHYGLDTGGAAPAQ 336
                            ||: |        :     :: :    || |: :  |:  |    :
||:
Db        216 QVVRQILMNSSYKGEHRQYKYDTEGSYVSKQAGNKSIIKIRPEE--
EQITVTIPAIVPAE 273

Qy        337 E-DEAQ 341
                : | ||
Db        274 QWDYAQ 279


RESULT 6
US-10-593-425-6
; Sequence 6, Application US/10593425
; GENERAL INFORMATION:
;  APPLICANT: Feesche, Jorg
;  APPLICANT:  Meinhardt, Friedhelm
;  APPLICANT:  Nahrstedt, Hannes
;  APPLICANT:  Waldeck, Jens
;  APPLICANT:  Groene, Mark
;  APPLICANT:  Eichstadt, Renee
;  TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;  TITLE OF INVENTION:  Safety Stems Used for Biotechnological
Production
;  FILE REFERENCE: H 06291 (13744*21)
;  CURRENT APPLICATION NUMBER: US/10/593,425
;  CURRENT FILING DATE:  2006-09-19
;  PRIOR APPLICATION NUMBER: PCT/EP05/001543
;  PRIOR FILING DATE: 2005-02-16
;  PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;  PRIOR FILING DATE: 2004-03-19
;  NUMBER OF SEQ ID NOS: 32
;  SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
;   LENGTH: 398
;   TYPE: PRT
;   ORGANISM: Bacillus subtilis
US-10-593-425-6

  Query Match              3.0%;  Score 52;  DB 1;  Length 398;
  Best Local Similarity  22.9%;  Pred. No. 0;
  Matches   43; Conservative   25; Mismatches   78; Indels   42;
Gaps    9;

Qy        142
DSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVMF 201
              |   :  |||| |           :    |:    |     |      :: ::| |  :
|
Db        233 DHQQEVASKAEIYG---------ETWYRSEVTVPLETLFN------
VYTGKVRTKHKLSF 277

Qy        202
GNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKTKIKVVKNKVAPPFRTAEVDIM 261
              |:       |   |       |: : ||  |      :| |  :  || :     | :|
Db        278 GSLAIPIWGMTFK---KEELKHPKTEQEKHSLHFLGFKLPVSYVKEQT----
RESE---- 326
```

```
Qy        262 YGEGISK--EGEIIDLGTEL---DIVQKSGAWYSYQEER-
LGQGRENAKQFLKENKDILL 315
                 | : |  : | :  | :|   |:  | |     : |: | |  || |        :
|
Db        327 --EALRKYTKEEAVQEGIKLGKQDVEDKIGENGEVKSEKVLHQTVENGK--------
VKL 376

Qy        316 MIQEQIRE 323
                 :|   |: |
Db        377 IILYQVIE 384


RESULT 7
US-10-593-425-16
; Sequence 16, Application US/10593425
; GENERAL INFORMATION:
;   APPLICANT: Feesche, Jorg
;   APPLICANT:  Meinhardt, Friedhelm
;   APPLICANT:  Nahrstedt, Hannes
;   APPLICANT:  Waldeck, Jens
;   APPLICANT:  Groene, Mark
;   APPLICANT:  Eichstadt, Renee
;   TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;   TITLE OF INVENTION:  Safety Stems Used for Biotechnological
Production
;   FILE REFERENCE: H 06291 (13744*21)
;   CURRENT APPLICATION NUMBER: US/10/593,425
;   CURRENT FILING DATE:  2006-09-19
;   PRIOR APPLICATION NUMBER: PCT/EP05/001543
;   PRIOR FILING DATE: 2005-02-16
;   PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;   PRIOR FILING DATE: 2004-03-19
;   NUMBER OF SEQ ID NOS: 32
;   SOFTWARE: PatentIn version 3.3
; SEQ ID NO 16
;   LENGTH: 264
;   TYPE: PRT
;   ORGANISM: Bacillus subtilis
US-10-593-425-16

  Query Match            2.8%;  Score 48;  DB 1;  Length 264;
  Best Local Similarity  26.1%;  Pred. No. 0;
  Matches  29; Conservative  13; Mismatches  29; Indels  40;
Gaps    7;

Qy        201
FGNPETTPGGRALKFYSSVRLEVRRAEQLKQGNDVMGNKTKIKVVKNKVAPPFRTAEVDI 260
              ||||        | | :    | : ||              :|:| |: :||    :
|
Db        126 FGNP--------LAFLAP---EHKNKEQ------------
QIEVGKDLIAPASGKVQQDF 162

Qy        261 M-YGEGIS-----------KEGEIIDLG----TELDI-VQKSGAWYSYQEE 294
              ||||            ||| ::::     | | : || :   ||    |
Db        163 QDNGEGIKVETSSDKIDSVKEGYVVEVSKDSQTGLTVKVQHADNTYSIYGE 213


RESULT 8
```

US-10-593-425-4
; Sequence 4, Application US/10593425
; GENERAL INFORMATION:
;   APPLICANT: Feesche, Jorg
;   APPLICANT: Meinhardt, Friedhelm
;   APPLICANT: Nahrstedt, Hannes
;   APPLICANT: Waldeck, Jens
;   APPLICANT: Groene, Mark
;   APPLICANT: Eichstadt, Renee
;   TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;   TITLE OF INVENTION: Safety Stems Used for Biotechnological
Production
;   FILE REFERENCE: H 06291 (13744*21)
;   CURRENT APPLICATION NUMBER: US/10/593,425
;   CURRENT FILING DATE: 2006-09-19
;   PRIOR APPLICATION NUMBER: PCT/EP05/001543
;   PRIOR FILING DATE: 2005-02-16
;   PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;   PRIOR FILING DATE: 2004-03-19
;   NUMBER OF SEQ ID NOS: 32
;   SOFTWARE: PatentIn version 3.3
; SEQ ID NO 4
;   LENGTH: 398
;   TYPE: PRT
;   ORGANISM: Bacillus licheniformis
US-10-593-425-4

  Query Match   2.5%; Score 44; DB 1; Length 398;
  Best Local Similarity   18.2%; Pred. No. 0;
  Matches   52; Conservative   40; Mismatches 104; Indels   90;
Gaps   12;

Qy   64 GPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIDELLLSQPD---
TG 120
             | | :| ||| : :   : :| | : | | | : : : :
|
Db   163 GIELNG---TALHMKVVEKNEPDKEKYIGPRHIV-----
AKKGATISKKFVEKGEPLVTV 214

Qy   121
EQALEIAEALVRSGAVDIVVIDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAI 180
             | :| : || || | : || : :: : | :
:
Db   215 NQHVEKGQMLV-SGL-----------------
IGSEEEKQKVGAKGKIYGETWYKSTVTV 256

Qy   181 NKSKTIAIFINQIREKVGVMFGN-----------------PET---
TPGGRALKFYSSVR 220
               : :| ::| : |: |:| | : |
|
Db   257
PLETSFDVFTGKVRTSHKLSLGSFSVPIWGFSFKKEDFSRPKTETENPSLHFMNFKLPVA 316

Qy   221 LE---
VRRAEQLKQGNDVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGT 277
             | :| :||:| :: | | : || : | :| ||
Db   317 YEKEHMRESEQIK----------RVYSKKEAVLEGIEMGKRDIR--
KKIGSDGNII---- 360

```
Qy        278 ELDIVQKSGAWYSYQEERLGQGRENAKQFLKENKDILLMIQEQIRE 323
                            |: | : || |         : |:| |: |
Db        361 -------------SEKVLHETSENGK--------VKLIILYQVIE 384
```

RESULT 9
US-10-593-425-18
; Sequence 18, Application US/10593425
; GENERAL INFORMATION:
; APPLICANT: Feesche, Jorg
; APPLICANT: Meinhardt, Friedhelm
; APPLICANT: Nahrstedt, Hannes
; APPLICANT: Waldeck, Jens
; APPLICANT: Groene, Mark
; APPLICANT: Eichstadt, Renee
;   TITLE OF INVENTION: Factor RecA From Bacillus Licheniformis and RecA-
inactivated
;   TITLE OF INVENTION: Safety Stems Used for Biotechnological
Production
;   FILE REFERENCE: H 06291 (13744*21)
;   CURRENT APPLICATION NUMBER: US/10/593,425
;   CURRENT FILING DATE: 2006-09-19
;   PRIOR APPLICATION NUMBER: PCT/EP05/001543
;   PRIOR FILING DATE: 2005-02-16
;   PRIOR APPLICATION NUMBER: DE 10 2004 013 988.1
;   PRIOR FILING DATE: 2004-03-19
;   NUMBER OF SEQ ID NOS: 32
;   SOFTWARE: PatentIn version 3.3
; SEQ ID NO 18
;   LENGTH: 288
;   TYPE: PRT
;   ORGANISM: Bacillus subtilis
US-10-593-425-18

  Query Match   2.5%; Score 42.5; DB 1; Length 288;
  Best Local Similarity   22.2%; Pred. No. 0;
  Matches   16; Conservative   14; Mismatches   31; Indels   11;
Gaps   2;

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Qy         54 YPRGRIIEVYGPESSGKTTVALHAIAE----------
VQQQGGQAAFIDAEHALDPVYAQ 103
                 | : | :|   | :          | :||          ::: | : : :|    |   :
|
Db        215
YGKNRELEKLLPLTVKAEDKVYHVMAEFKRGCKHPIIIEKSGQKLSQLDENEVLHAYFAD 274

Qy        104 K-LGVNIDELLL 114
                |     :::||||
Db        275 KRTNSSMEELLL 286
```

RESULT 10
US-10-593-425-14
; Sequence 14, Application US/10593425
; GENERAL INFORMATION:
; APPLICANT: Feesche, Jorg
; APPLICANT: Meinhardt, Friedhelm
; APPLICANT: Nahrstedt, Hannes
; APPLICANT: Waldeck, Jens
; APPLICANT: Groene, Mark

  Query Match   2.0%; Score 34.5; DB 1; Length 156;
  Best Local Similarity 22.3%; Pred. No. 0;
  Matches   25; Conservative   20; Mismatches   44; Indels   23;
Gaps   5;

Qy   94 EHALDPVYAQKLGVNIDELLLSQPDTGEQALEIAEALVRSGAVDIVV-
IDSVAALVPKAE 152
              ||| : : | : : ::   :||| || |: | : :: |:| :|
Db   49 EHARNMLIEHNLRL-VAHIVKKFENTGED----
AEDLISIGTIGLIKGIESYSA------ 97

Qy   153 IEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKV-GVMFGN 203
                       | :: : | | : | :| | : || : || |
Db   98 ----------GKGTKVATYAARCIENEIVITKGGCIHPSLIRFNIYGVRIHN 139

Search completed: January 27, 2009, 15:05:51
Job time : 1 secs